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FORM PTO-FB-AB20
(also form PTO-1449)

Patent and Trademark Office - U.S. DEPARTMENT of COMMERCE

TU-1449
1-61 (modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEInformation Disclosure Statement
Filed By Applicant
(Use several sheets if necessary)ATTY. DOCKET NO.
1280-4014 US4
ENZ-1 (C) Div. III

APPLICANT

David C. Ward, et al.

FILING DATE

December 8, 1987

Sheet 1 of 25

SERIAL NO.

07/130,000

GROUP

1807

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AM	AA	3 3 2 8 3 8 9	6/27/67	Shimizu et al.	260	211.5	
AM	AB	3 3 3 7 5 3 0	8/22/67	Kanzo	260	211.5	
AM	AC	3 3 3 8 8 8 2	8/29/67	Wechter	260	211.5	
AM	AD	3 8 0 4 8 2 6	4/10/74	Schelt et al.	260	211.5R	
AM	AE	3 8 9 3 9 9 8	7/3/75	John A. Secrist III, et al.	260	211.5R	
AM	AF	3 9 1 5 9 5 8	10/28/75	Shuman et al.	260	211.5R	
AM	AG	3 9 1 7 5 8 3	11/4/75	Meyer et al.	260	211.5R	
AM	AH	3 9 6 0 8 4 0	6/1/76	John A. Secrist III et al.	260	211.5R	
AM	AI	3 9 6 8 1 0 1	7/6/76	Christensen et al.	260	211.5R	
AM	AJ	4 0 0 8 3 6 3	2/15/77	Luciano Re et al.	536	28	
AM	AK	4 0 3 8 4 8 0	7/26/77	Robins et al.	536	27	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
AM	AL	2 6 1 8 4 1 9	11/4/76	German Offenlegungsschrift	2	—	—	X
AM	AM	2 6 1 8 5 1 1	11/4/76	German Offenlegungsschrift	2	—	—	X
AM	AN	3 0 4 5 3 7 5	7/1/82	German Offenlegungsschrift	3	—	—	X
AM	AO	2 0 1 9 4 0 8	10/31/79	United Kingdom Pat. Appln.	3	—	—	
AM	AP	2 0 2 6 6 9 0	2/6/80	United Kingdom Pat. Appln.	3	—	—	

Other Documents (including Author, Title, Date, Pertinent Pages, Etc.)

AM AR J. G. J. Bauman et al., "A New Method for Fluorescence Microscopical Localization of Specific DNA Sequences by In Situ Hybridization of Fluorochrome-Labelled RNA", Exp. Cell Res., 128, pp. 485-90 (1980) ("Bauman I")

AM AT J. G. J. Bauman et al., "Rapid and High Resolution Detection of in situ Hybridisation to Polytene Chromosomes Using Fluorochrome-Labeled RNA," Chromosoma (Berl.) 84, pp. 1-18 (1981) ("Bauman II")

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FORM PTO-1467
REV. 7-80
(modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

Information Disclosure Statement
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				ATTY DOCKET NO. ENZ-1 (C) Div. III	SERIAL NO. 07/130,070
APPLICANT David C. Ward, et al.				FILING DATE December 8, 1987	
				GROUP 1807	

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DA IF APPROPRIATE
AM	AA	4 0 4 8 3 0 7	9/13/77	Yokota et al.	424	180	
AM	AB	4 0 8 6 4 1 7	4/25/78	Ishida et al.	536	29	
AM	AC	4 0 8 8 6 3 9	5/9/78	Zappelli et al.	260	112.5R	
AM	AD	4 0 9 6 3 2 4	6/20/78	Kelly et al.	536	23	
AM	AE	4 1 3 4 7 9 2	1/16/79	Boguslaski et al.	195	99	
AM	AF	4 1 5 1 3 4 9	4/24/79	Traeger et al.	536	28	
AM	AG	4 1 7 1 4 3 2	10/16/79	Carrico et al.	536	26	
AM	AH	4 2 1 3 8 9 3	7/22/80	Carrico et al.	260	112.5	
AM	AI	4 2 2 8 2 3 7	10/14/80	Hevey et al.	435	7	
AM	AJ	4 2 3 0 6 9 8	10/28/80	Bobek et al.	424	180	
AM	AK	4 2 3 0 7 9 7	10/28/80	Boguslaski, et al.	435	7	

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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AM	AL	2 0 3 4 3 2 3	6/4/80	United Kingdom Pat. Appln.	3		
AM	AM	2 0 4 1 9 2 2	9/17/80	United Kingdom Pat. Appln.	3		
AM	AN	2 0 4 5 2 3 9	10/29/80	United Kingdom Pat. Appln.	3		
AM	AO	2 1 2 5 9 6 4	3/14/84	United Kingdom Pat. Appln.	3		
AM	AP	0 7 0 6 8 5	1/26/83	EPO Patent Application	3		

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E. A. Bayer and M. Wilchek, "The Use of the Avidin-Biotin Complex as a Tool in Molecular Biology," in Methods of Biochemical Analysis, 26, pp. 1-45 (1980).

D. Bergstrom and M. Ogawa, "C-5 Substituted Pyrimidine Nucleosides. 2. Synthesis Via Olefin Coupling To Organopalladium Intermediates Derived From Uridine and 2'-Deoxyuridine, J. Am. Chem. Soc., 100, pp. 8106-8112 (1978). ("Bergstrom I")

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AM	AA	4 2 4 7 5 4 4	1/27/81	Bergstrom et al.	424	180	
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AM	AC	4 2 6 1 8 9 3	4/14/81	Boguslaski et al.	260	326N	
AM	AD	4 2 6 7 1 7 1	5/12/81	Bergstrom et al.	424	180	
AM	AE	4 3 0 2 2 0 4	11/24/81	Wahl et al.	23	230.3	
AM	AF	4 3 1 8 9 8 0	3/9/82	Boguslaski et al.	435	7	
AM	AG	4 3 1 8 9 8 1	3/9/82	Burd et al.	435	7	
AM	AH	4 3 1 8 9 8 2	3/9/82	Hornby et al.	435	7	
AM	AI	4 3 5 5 1 6 5	10/19/82	Boguslaski et al.	544	237	
AM	AJ	4 3 5 8 5 3 5	11/9/82	Falkow et al.	435	5	
AM	AK	4 3 6 3 7 5 9	12/14/82	Boguslaski et al.	260	112.7	

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AM	AL	7 0 6 8 7	1/26/83	EPO Patent Application	3			
AM	AM	1 5 4 8 7 4 1	7/18/79	Great Britain Patent	2	33/16		
AM	AN	1 5 5 2 6 0 7	9/19/79	Great Britain Patent	2	33/16		
AM	AO	4 3 2 4 1 9 1	10/18/83	Japanese Patent Application	16E	611.2		X
AM	AP	5 8 6 2 1 9 4	4/13/83	Japanese Patent Application	3007H	19706		X

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- AM AT C. Brandon et al., "Structure of a New Pyrimidine from Bacillus Subtilis Phage SP-15 Nucleic Acid", Nature New Biology, 239, pp. 70-71 (1972)

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AM	4 3 8 0 5 8 0	4/19/83	Boguslaski et al.	435	7	
AM	4 3 8 3 0 3 1	5/10/83	Boguslaski et al.	435	7	
AM	4 4 4 6 2 3 1	5/1/84	Self	435	7	
AM	4 4 6 9 8 6 3	9/4/84	Ts' o et al.	536	27	
AP	5 7 2 0 0 3	4/26/75	Boguslaski et al.*			
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AM	AL 8 3 0 2 2 7 6	7/7/83	PCT Patent Application	3007H	19/20	X* *
AM	AM 8 3 0 2 2 7 7	7/7/83	PCT Patent Application	3007H	21/00	X* *
AM	AN 8 3 0 2 2 8 6	7/7/83	PCT Patent Application	3C12Q	1/68	X* *
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AM AR T. R. Broker et al., "Electron Microscopic Visualization Of tRNA Genes with Ferritin-Avidin: Biotin Labels," Nucl. Acids Res., 5, pp. 363-83 (1978)

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* United States patent application
** Abstract only.

(modified)

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(Use several sheets if necessary)ATTY. DOCKET NO.
1280-4014 US4
ENZ-1 (C) Div. IIISheet 5 of 25
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AM AS W. S. Dallas and S. Falkow, "Molecular and Genetic Analysis of a DNA Sequence Encoding for Enterotoxin Synthesis in Escherichia Coli," Thirteenth Joint Conference on Cholera, The U.S.-Japan Cooperative Medical Science Program (1979)
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Other Documents (including Author, Title, Date, Pertinent Pages, Etc.)

AM	AR	W. S. Dallas et al., "The Characterization of an <u>Escherichia Coli</u> Plasmid Determinant That Encodes for the Production of a Heat-Labile Enterotoxin," <u>Plasmids of Medical Environmental and Commercial Importance</u> , K. N. Timmis and A. Puhler, editors, Elsevier/North-Holland Biomedical Press (1979) ("Dallas II")
AM	AT	D. J. Eckermann and R. H. Symons, "Sequence at the Site of Attachment of an Affinity-Label Derivative of Puromycin on 23-S Ribosomal RNA of <u>Escherichia coli</u> Ribosomes," <u>Eur. J. Biochem.</u> , 82, pp. 225-34 (1978)
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AR	M. Ya. Feldman, <u>Reactions of Nucleic Acids and Nucleoproteins With Formaldehyde</u> , <u>5d. (19)</u>
AM AS	H. G. Gratzner, "Monoclonal Antibody to 5-Bromo- and 5-Iododeoxyuridine: A New Reagent for Detection of DNA Replication," <u>Science</u> , 218, pp. 474-475 (1982)
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Sheet 8 of 25Form PTO-1449
REV. 7-4-81 (modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
1280-4014 US4
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AM	AS	H. Hayashi and K. Nakanishi, "Synthesis and Absolute Configuration of (+)-5-(4',5'-Dihydroxypentyl)uracil from <u>Bacillus Subtilis</u> Phage SP-15 Deoxyribonucleic Acid," <u>J. Am. Chem. Soc.</u> , 95, pp. 4081-4083 (1973) (Hayashi I)
AM	AT	H. Hayashi et al. "Structure and Synthesis of Dihydroxypentyl-uracil from Bacteriophage SP-15 Deoxyribonucleic Acid," <u>J. Am. Chem. Soc.</u> , 95, pp. 8749-8757 (1973) (Hayashi II)

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Form P-1649
REV. 7-1979
(modified) U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

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ATTY-DOCKET NO. 84
ENZ-1 (C) Div. III
APPLICANT
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Sheet 9 of 25

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AM AR R. G. Kallen et al., "The Occurrence of a New Pyrimidine Base Replacing Thymine in a Bacteriophage DNA: 5-Hydroxymethyl Uracil," J. Mol. Biol. 5, pp. 248-250 (1962)

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AM	AR	T. T. Kuo et al., "5-Methylcytosine Replacing Cytosine in the Deoxyribonucleic Acid of a Bacteriophage for Xanthomonas oryzae." <u>J. Mol. Biol.</u> , 34, pp. 373-375 (1968)
	AS	P. R. Langer et al., "Enzymatic Synthesis of Biotin-Labeled Polynucleotides: Novel Nucleic Acid Affinity Probes". <u>Proc. Natl. Acad. Sci. USA</u> , 78, pp. 6633-37 (1981) ("Langer")
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Other Documents (Including Author, Title, Date, Pertinent Pages, Etc.)

AM AR P. R. Langer and D. C. Ward, "A Rapid and Sensitive Immunological Method For In Situ Gene Mapping," in Developmental Biology Using Purified Genes, ed. D. D. Brown, Academic Press, pp. 647-58 (1981)
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AM AT P.R. Langer and D. C. Ward, Abstract 1153: "A Rapid and Sensitive Immunological Method For In Situ Gene Mapping," in Journal of Supramolecular Structure and Cellular Biology, ed. Alan R. Liss, Inc. (1981) ("Langer III")

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Ardin Marshel

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1280-4014 US4
ENZ-1 (C) Div. IIISheet 14 of 25
SERIAL NO.
07/130,070

APPLICANT

David C. Ward, et al.

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(Use several sheets if necessary)Sheet 15 of 254730-4014 US4
ENZ-1 (C) Div. IIISERIAL NO.
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Andrea Mascher

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1280-4014 US4
ENZ-1 (C) Div. IIISheet 16 of 25SERIAL NO.
07/130,070

APPLICANT

David C. Ward, et al.

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1280-4014-US4

ENZ-1 (C) Div. III

APPLICANT

David C. Ward, et al.

FILING DATE

December 8, 1987

SHEET 17 of 25

SERIAL NO.

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David C. Ward, et al.
FILING DATE
December 8, 1987Sheet 19 of 25
SERIAL NO.
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INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>									APPLICANT David C. Ward, et al.						
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